

**IN THE CLAIMS:**

Claims 1, 5, and 12 have been amended herein. New claims 21 through 30 are presented herein. All of the pending claims 1 through 30 are presented below. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

**Listing of the Claims:**

1. (Currently Amended) An isolated strain of *Lactococcus* species comprising a defective thymidylate synthase gene;

wherein said thymidylate synthase gene is selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO: 5.

2. (Original) The isolated strain of *Lactococcus* species of claim 1, wherein said thymidylate synthase gene has been inactivated by gene disruption.

3. (Original) The isolated strain of *Lactococcus* species of claim 1, wherein the *Lactococcus* species is *Lactococcus lactis*.

4. (Original) The isolated strain of *Lactococcus* species of claim 2, wherein the *Lactococcus* species is *Lactococcus lactis*.

5. (Currently Amended) A transformed strain of *Lactococcus* species, said *Lactococcus* species comprising a defective thymidylate synthase gene, and further comprising a transforming plasmid,

wherein said thymidylate synthase gene is selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO: 5; and

wherein said transforming plasmid does not ~~having~~ comprise an intact thymidylate synthase gene.

6. (Original) The transformed strain of *Lactococcus* species of claim 5, further comprising a gene encoding a molecule of interest.

7. (Original) The transformed strain of *Lactococcus* species of claim 6, wherein said molecule of interest is Interleukin-10.

8. (Original) The transformed strain of *Lactococcus* species of claim 5, wherein said *Lactococcus* species is *Lactococcus lactis*.

9. (Original) The transformed strain of *Lactococcus* species of claim 8, wherein the *Lactococcus lactis* comprises a gene encoding a molecule of interest.

10. (Original) The transformed strain of *Lactococcus* species of claim 9, wherein the molecule of interest is Interleukin-10.

11. (Withdrawn) A method for delivering a molecule of interest to a subject, said method comprising administering the transformed strain of *Lactococcus* species of claim 6 to the subject.

12. (Currently Amended) A composition comprising:  
a transformed strain of *Lactococcus* species comprising a defective thymidylate synthase gene, and further comprising a transforming plasmid, wherein said thymidylate synthase gene is selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO: 5; and  
wherein said transforming plasmid does not ~~having~~ comprise an intact thymidylate synthase gene.

13. (Original) The composition of claim 12, wherein the *Lactococcus* species further comprises a gene encoding a molecule of interest.

14. (Original) The composition of claim 13, wherein said molecule of interest is Interleukin-10.

15. (Original) The composition of claim 12, wherein said *Lactococcus* species is *Lactococcus lactis*.

16. (Original) The composition of claim 15, wherein the *Lactococcus lactis* comprises a gene encoding a molecule of interest.

17. (Original) The composition of claim 16, wherein the molecule of interest is Interleukin-10.

18. (Withdrawn) A method of treating inflammatory bowel disease in a subject, said method comprising:  
administering to the subject a transformed strain of *Lactococcus* species of claim 6.

19. (Withdrawn) The method of claim 18, wherein the molecule of interest is Interleukin-10.

20. (Withdrawn) A method for delivering a molecule of interest to a subject, said method comprising administering the transformed strain of *Lactococcus* species of claim 9 to the subject.

21. (New) An isolated *Lactococcus* bacterium comprising:  
a genome, and, incorporated into said genome, a means for encoding a defective thymidylate synthase gene; and  
wherein said genome has been genetically modified in comparison to wild-type *Lactococcus*.

22. (New) The isolated *Lactococcus* bacterium of claim 21, wherein the means for encoding a defective thymidylate synthase gene comprises a thymidylate synthase gene selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO:5.

23. (New) The isolated *Lactococcus* bacterium of claim 21, wherein the *Lactococcus* bacterium is a *Lactococcus lactis* bacterium.

24. (New) The isolated *Lactococcus* bacterium of claim 21, further comprising a transforming plasmid; and

wherein said transforming plasmid does not comprise an intact thymidylate synthase gene.

25. (New) The isolated *Lactococcus* bacterium of claim 24, further comprising a gene encoding a molecule of interest.

26. (New) The isolated *Lactococcus* bacterium of claim 25, wherein said molecule of interest is Interleukin-10.

27. (New) The isolated *Lactococcus* bacterium of claim 24, wherein said *Lactococcus* bacterium is a *Lactococcus lactis* bacterium.

28. (New) The isolated *Lactococcus* bacterium of claim 27, wherein the *Lactococcus lactis* bacterium comprises a gene encoding a molecule of interest.

29. (New) The isolated *Lactococcus* bacterium of claim 28, wherein the molecule of interest is Interleukin-10.

30. (New) A composition comprising: the isolated *Lactococcus* bacterium of claim 21.